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29 January 1964

MEMORANDUM FOR THE RECORD

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1. SUBJECT: PAR 214, Contract [redacted] Roller Transport Reversal Processor (12 inch)
2. REFERENCES:
 - a. [redacted] Quarterly Report, Contract [redacted] Second Quarter, FY 64
 - b. Conference at P&DS, 23 January 1964
3. ACTION REQUIRED: Review design objective for acceptance.
4. ACTION TAKEN: Design objective to be reoriented to accept 9.5 inch by 500 foot roll film. However, initiation of task is to be delayed until results from PAR 206 become available.
5. COORDINATION: The design objectives were discussed with [redacted] of PSD on 28 January 1964, resulting in concurrence.
6. COPIES FURNISHED: [redacted]

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Development Branch, P&DS

Declass Review by NGA.

DESIGN OBJECTIVE

Roller Transport Reversal Processor (12-inch)

(PAR-214)

*coordination
copy*

Problem

A requirement exists for a versatile photographic processor capable of handling both sheets and continuous webs of photographic material and adaptable to processor yielding either standard negative or reversal images. Interchange between processes should be easily made.

Proposal

It is proposed to use elements of existing self-threading equipment in a new configuration to incorporate a reversal processing cycle and the necessary valves, switches and controls for easy interchange between cycles.

The characteristics of the proposed processor are concerned in the attached Spec No. 203, which includes a typical layout for such a machine.

It should be recognized that as with other RT Processors some of the thinner base materials may require a pilot tab at the leading edge in order to be self-threading.

Specification
for
Roller Transport Reversal Processor (12-inch)

Mission: Build a versatile, self-threading photographic processor capable of processing both sheets and continuous strips of film to either standard negative or reversal images. Changes from one process to the other accomplished with a minimum of operator effort.

Processing Method: Roller transport conveyance through deep tanks. Agitation accomplished by action of conveying rollers.

Material Capabilities: Cut Sheet:

Minimum - 4 x 5 inches

Maximum - 11 x 14 inches

Note: Cut sheet films must be packaged and shipped in cut sheet form. Not cut from roll stock.

Continuous Strip:

Minimum - 16mm

Maximum - 9½-inches

Material: Certain types of black and white aerial and commercial films. Black and white treated paper-base materials.

Note: It should be recognized that with roller transport equipment, some of the thinner base materials may require a pilot tab at the leading edge in order to be self-threading.

Output Rates: (Approximate)

Print Material

Negative	15 Ft/min.
Reversal	10 Ft/min.

Original Material

Negative	8 Ft/min.
Reversal	5 Ft/min.

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Process
Time:

Dry to Dry: (Approximate)

Print Material

Negative	5 minutes
Reversal	7 minutes

Original Material

Negative	9 minutes
Reversal	14 minutes

Product
Quality:

Good commercial quality. *over reversal*

Physical
Dimensions:

Overall Dimensions: (Approximate)

Length - 13 ft. 6 inches

Width - 40 inches

Height - 45 inches

Weight - 2,000 pounds (approximate)

Service

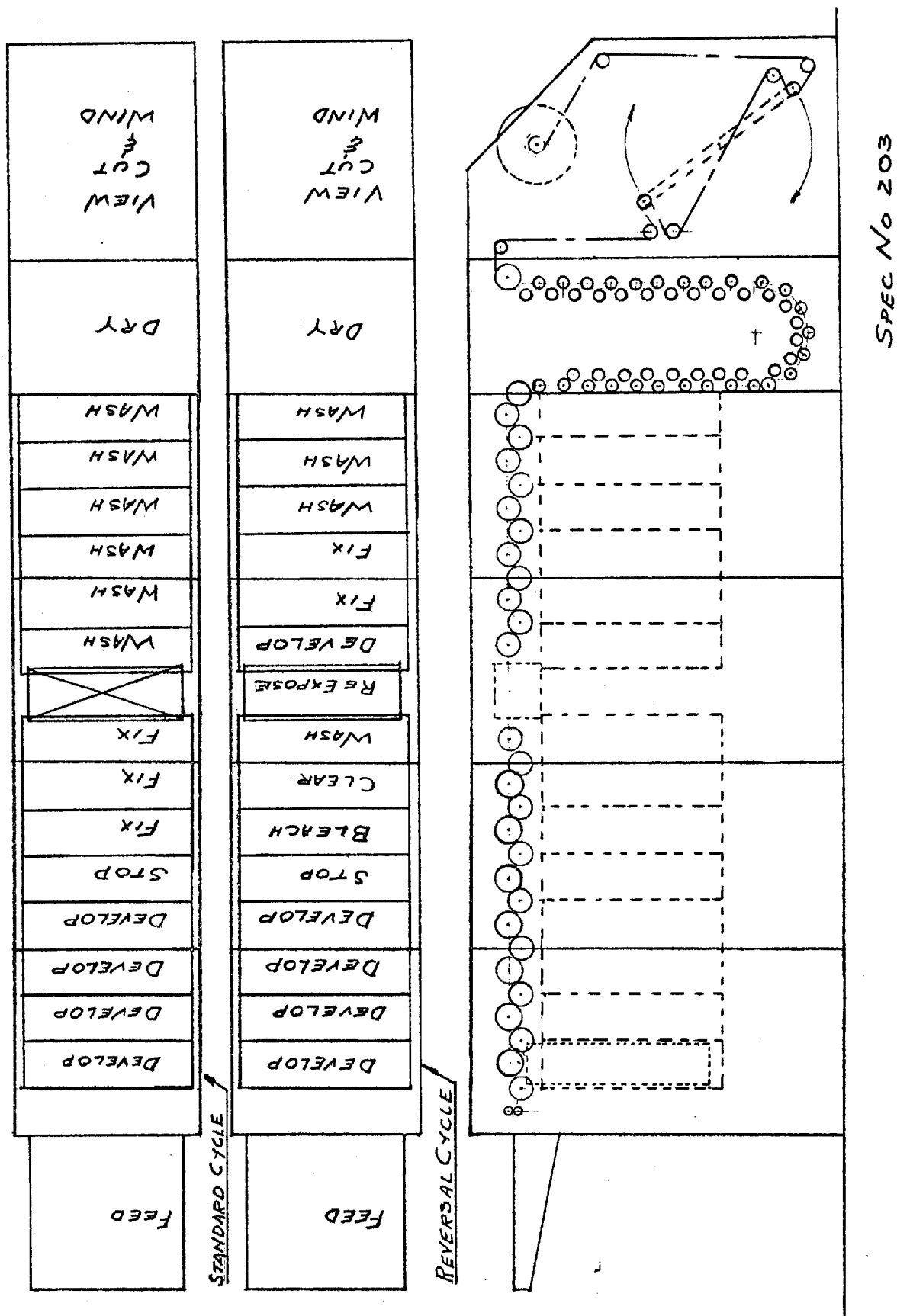
Requirements: Power: 120/208 volt, 3 phase, 4 wire 60 cycle a. c. can be converted to 230 volt, 3 phase, 3 wire or 230 volt single phase, 3 wire, 12 to 15 kilowatts.

Water: Hot (150°F) and cold (60°F Max.) service to operating area at 45 psi minimum.

Total consumption 6 to 8 gallons per minute controlled to $\pm 10^\circ\text{F}$. Mixing and control equipment provided with processor.

Air: 25 psi instrument air.

Sewer: 4-inch Duriron service line.



SPEC No 203

FIG. 1